

AMENDMENT TO SPECIFICATION

IN THE SPECIFICATION:

A marked-up copy of the changes to selected paragraph(s) is provided below.

Please enter these changes to the specification in the record.

Please replace the paragraph beginning at line 11 of page 2 of the specification as originally filed with the following:

Speckle ~~patterns~~pattern is a phenomenon in which, when a coherent light forms an image on a rough surface, it complicatedly scatters and interferes with one another depending on the roughness, so that spots having strong brightness (speckles) are generated in a large number as a spatial distribution of irregularly reflecting light, thus forming a spot pattern having contrast (so-called speckle pattern). For example, speckles are removed as a noise in a method in which the structure of a starch dispersion or collagen gel is analyzed by light scattering measurement (JP-A-7-301602). Thus, speckle has been treated as a noise of light and the like electromagnetic wave and supersonic wave, but measurements of displacement, distortion and roughness have recently been introduced as its applied measuring techniques (illustrative examples are not described; "Practical Light Keyword Dictionary" (written in Japanese), published by Asakura Shoten, pp. 202-203). Also, its application to non-contact type migration length (speed) measurement, vibration measurement and the like based on speckle patterns has been devised in a large number. In addition, application of a specific speckle pattern to the recognition of a material or a person has also been devised (JP-A-2000-149087).

Please replace the paragraph beginning at line 24 of page 4 of the specification as originally filed with the following:

In this connection, the speckle ~~patters~~pattern is defined as "A complex interference pattern which is formed as a pattern of spots having high contrast in the space when a rough surface is illuminated with a laser beam or the like coherent light, due to interference of lights scattered at respective points on the rough surface with a mutual irregular phase relationship." ("Dictionary of Light" published by Ohm (written in Japanese), pp. 126-127), and "When laser beam is applied to the rough grind surface of paper, frosted glass, a wall, wood, a metal or a plastic material, a pattern of spots which cannot usually be observed shows up. Each spot is generally called as a speckle, and the pattern as a speckle pattern. This pattern is formed, because the lights scattered at respective points on the scattering surface interfere with one another having a irregular phase relationship corresponding to the microscopic irregularity on the surface." ("Optical Measurement Handbook" published by Asakura Shoten (written in Japanese), p. 234).